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FOR THE
ITU 1995 WORLD RADIOCOMMUNICATION CONFERENCE

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**INTERIM REPORT**

December 30, 1994

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The Honorable Reed E. Hundt  
Chairman  
Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

Dear Mr. Chairman:

I am pleased to submit to you under cover of this letter the Interim Report of the Industry Advisory Committee ("IAC") containing preliminary recommendations relating to the preparation of U.S. proposals and positions for the 1995 World Radiocommunication Conference ("WRC-95").

The basic mission of the IAC is to provide the Commission with advice and technical support relating to U.S. preparation for WRC-95. To that end, IAC membership and participation is open to industry and the general public.

As you know, domestic and international preparations for WRC-95 have been well underway for months. In the U.S., private industry provides input to the Commission through comments to Notices of Inquiries and the IAC process. The U.S. government, in particular the National Telecommunications and Information Administration ("NTIA"), manages its own internal preparations for WRC-95. In that regard, I wish to recognize the support that Mr. Larry Palmer and others of NTIA have extended to the IAC by sharing with us the Initial Government Recommended Proposals, and for constructive discussions regarding government preparations for WRC-95.

The IAC also has benefitted greatly from the participation of its members in the U.S. National Committee process and many of the proposals in our Interim Report have already been discussed in other national and international forums. Thus, the IAC has

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benefitted greatly from the hard work of many of its members who have participated in various domestic and international preparatory activities for WRC-95. This participation undoubtedly has forced IAC members to balance many competing demands. In spite of tight schedules, everyone participating in the IAC has done a heroic job in completing the Interim Report for submission to the Commission on schedule.

The IAC also wishes to recognize the vital work of the Commission's staff who have been the driving force in determining the mission of the IAC. Special thanks are due to Thomas Walsh, Cecily Holiday, and Damon Ladson.

I also want to emphasize that what we are submitting to you today is truly an "interim" report. It is important to stress that the recommended U.S. positions and proposals in the Interim Report are preliminary and have not been completely circulated for comment and reaction among the IAC members and the general public. As such, I expect that over the next few months major parts of it will be refined and edited as the IAC undertakes the process of examining its preliminary recommendations and drafting its Final Report.

The Interim Report consists of six separate reports, one from each of the informal working groups ("IWG") organized in connection with the IAC. The six working group reports were discussed and approved for submission to the Commission as an Interim Report in a meeting of the full Industry Advisory Committee on December 21, 1994. As noted above, the reports of the various IWGs have yet to be completely coordinated with one another. This will be an essential and important task in the coming months, as the subject matter of IWG-1 and IWG-6 in particular cuts across that of the other working groups. The working group reports that comprise the Interim Report are discussed briefly below.

#### **IWG-1 - Regulatory Coordination**

This interim report addresses recommendations for the Commission to consider on various regulatory issues likely to arise at WRC-95. Much of IWG-1's report focuses on analyzing the sections of the Report of the Voluntary Group of Experts, focusing on advance publication, coordination and registration of satellite use of the spectrum and orbit resources. IWG-1 is chaired by Raul Rodriguez; Thomas Keller serves as Vice Chair.

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#### **IWG-2 - MSS Below 1 GHz**

IWG-2 considers recommendations for U.S. proposals and positions on a number of issues concerning MSS below 1 GHz. The interim report of IWG-2 presents preliminary findings and proposals relating to improving existing spectrum allocations and making additional spectrum allocations for MSS below 1 GHz. Additionally, the report discusses proposals and recommendations relating to regulatory procedures and sharing criteria. IWG-2 is chaired by Donald Jansky; Kathryn Martin serves as Vice Chair.

#### **IWG-3 - MSS Above 1 GHz**

IWG-3 considers recommendations for U.S. proposals and positions on a number of issues concerning MSS above 1 GHz. The interim report of IWG-3 contains preliminary findings and proposals relating to MSS above 1 GHz spectrum requirements, improving existing allocations, date of entry into force of allocated frequency bands between 1 and 3 GHz, additional allocations, and various regulatory issues. IWG-3 is chaired by Warren Richards; Ben Fisher serves as Vice Chair.

#### **IWG-4 - MSS Feeder Links**

The interim report of IWG-4 addresses several issues relating to MSS feeder links, including overall spectrum requirements, the feasibility of sharing between MSS feeder links and other services and between multiple MSS feeder link systems, and regulatory and procedural provisions for MSS feeder link networks. IWG-4 is chaired by Jack Wengryniuk; Michael Richmond serves as Vice Chair.

#### **IWG-5 - Space Services**

The interim report of IWG-5 discusses power limits for earth stations in the 2025-2110 MHz band, Resolution 112 dealing with use of the 13.75-14.0 GHz band, Resolution 712, and issues for future conferences. IWG-5 is chaired by Diane Garfield; Jack Miller serves as Vice Chair.

#### **IWG-6 - Future WRC Agendas**

The interim report of IWG-6 contains preliminary discussion regarding the WRC-97 Agenda. By its very nature, this report is the most preliminary of our reports and its proposals have not yet received full discussion and are forwarded at this time primarily for informational purposes. We expect this report to be supplemented shortly, after

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circulation among the other IWGs. IWG-6 is chaired by Leonard Kennedy; Loretta Garcia serves as Vice Chair.

\* \* \* \*

I anticipate we will see continued vigorous industry participation in IAC as we move forward in the coming months. The IAC represents a great opportunity to continue an important partnership between the public and private sectors that will help solidify U.S. positions, open new international markets for U.S. industry, and further the development of new telecommunications services. As you will see from the preliminary proposals in the Interim Report, industry recognizes the importance of WRC-95 and pledges to work with the Commission to achieve United States goals in the fast-approaching WRC-95.

Very truly yours,



Gary M. Epstein  
Chair, Industry Advisory Committee

Attachments

cc: Commissioner Susan Ness  
Scott B. Harris

**FCC INDUSTRY ADVISORY COMMITTEE**  
**FOR THE**  
**ITU 1995 WORLD RADIOCOMMUNICATION CONFERENCE**

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INTERIM REPORT

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FCC INDUSTRY ADVISORY COMMITTEE
FOR THE
ITU 1995 WORLD RADIO COMMUNICATION CONFERENCE

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INTERIM REPORT
OF
INFORMAL WORKING GROUP 1

~ ~ ~ ~

Raul R. Rodriguez
Chair

Thomas J. Keller
Vice Chair

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SECTION I
INTRODUCTION

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INTRODUCTION

The primary mission of Informal Working Group 1 ("IWG-1") is to develop recommendations for the Federal Communications Commission ("FCC" or "Commission") to consider on the regulatory issues likely to arise at the 1995 World Radiocommunication Conference ("WRC-95") and to provide a coordinated approach to dealing with these issues. Because the Report of the Volunteer Group of Experts ("VGE Report") recommends to WRC-95 a substantial rewrite of the Radio Regulation, this is the paramount "regulatory" concern in preparing for WRC-95. IWG-1 has thus to date focused most of its attention to analyzing the VGE Report. In line with IWG-1's terms of reference, the group first reviewed those sections of the VGE Report which concern the advance publication, coordination and registration of satellite use of the spectrum and orbit resources. The bulk of this Interim Report focuses on an analysis of these sections of the VGE Report. Section II contains this analysis.

IWG-1 met six times and participated in one joint meeting with IWG-3 on spectrum allocations for the Big LEOs. Unfortunately, IWG-1 could not meet more often during the past six months. Because of the large number of ITU-related meetings during this period, including a Plenipotentiary Conference, IWG-1 participants were often not available to meet. In addition, many IWG-1 participants also contribute to other working groups,

adding to our scheduling difficulty. Nonetheless, we were able to review completely Articles S7-S13, as well as Appendix S5 of the VGE Report and to provide preliminary observations and recommendations concerning these Articles in this Interim Report.

We wish to express IWG-1's appreciation to the Government for sharing with us early drafts of the Initial Government Recommended Proposals. These drafts simplified our work, stimulated our thinking, and provided a useful means of validating our own observations. In our Interim Report, we try to indicate where we support a particular Government position and where industry recommends or prefers a different result.

Section III of this Interim Report provides IWG-1's views on the WRC-95 agenda items concerning Appendices 30 and 30A to the Radio Regulations. In the Final Report we will elaborate further on this item, as well as make recommendations on possible modifications to Appendix 30B.

Appendix A contains IWG-1's working outline of Articles S7-S13 which we found as a useful approach to discussing the provisions of these section of the VGE Report. Appendix B is a listing of the people who participated in the work of IWG-1.

As the working group whose primary task is to "coordinate" the regulatory aspects of issues under consideration by other working groups, the work of IWG-1 in many respects depends on being kept apprised of matters under consideration in other working groups. Unfortunately, to date, despite requests from IWG-1, no other working group has reported to IWG-1 on their

progress or on matters they have under consideration. We urge the other working groups to cooperate in the coming months so that IWG-1 may carry out its responsibilities and provide the Commission in the Final Report with its assessment of the regulatory aspects of the work product of the other working groups.

SECTION II

REVIEW OF THE REPORT OF THE VOLUNTEER GROUP OF EXPERTS

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REVIEW OF THE REPORT OF THE VOLUNTEER GROUP OF EXPERTS

A. Introduction

US industry believes that the Final Report of the Volunteer Group of Experts ("VGE") is an important item on the WRC-95 agenda and embraces the objective of ensuring that the simplified Radio Regulations support orderly, efficient and equitable registration of frequency assignments. Given the scope of the VGE Report and the importance of the regulatory procedures addressed by the VGE under Task 2, IWG-1 devoted the majority of its time (to date) considering the Task 2 material. While the importance and complexity of this material are well understood, IWG-1 under took the detailed review of the Task 2 material recognizing that there are other issues of pressing importance before WRC-95 and that the consideration of the simplified Radio Regulations should not dominate all the time of the Conference. Prominent among the other issues are mobile satellite service link and feeder link issues which will require a significant amount of Conference time to resolve.

IWG-1 recognizes that a body of experts from a number of administrations devoted considerable time and effort in collaborating to produce the procedures of the simplified Radio Regulations. IWG-1 found that the VGE carried the majority of the provisions of the Radio Regulations forward to the simplified Radio Regulations without change to their practical effect on the registration process. The resulting procedures reflect both the

thrust and the nuances of the Radio Regulations. The procedures of the simplified Radio Regulations were given full consideration and were found to be practicable. In the review of the considerable volume of text, some areas were found that call for minor changes to the text of the simplified Radio Regulations to clarify, for administrations, the necessary procedures. The need for these necessary clarifications, discussed in detail later, does not detract from the overall suitability of the Task 2 material as a replacement to the procedures of the Radio Regulations.

IWG-1 reviewed the procedures of the simplified Radio Regulations with a view to the practical affect on the process for registering and notifying frequency assignments. Specifically, IWG-1 is of the view that if the result of the application of the simplified Radio Regulations on a registration process is identical to the result of the application of the present Radio Regulations, then the simplified Radio Regulations can and should be accepted *even though the wording and the form of the simplified Radio Regulations may differ somewhat from the present Radio Regulations.*

During the review process, the FCC gave IWG-1 the opportunity to view some early government drafts of comments on the VGE Task 2 simplified procedures. Through this open process, the group was able to reflect on and benefit from the considerable work and experience of government Radio Regulation experts. The comments of IWG-1, in the following sections, take

into account to the early government draft comments. It should be noted that the open and cooperative actions of government in sharing the early draft comments with IWG-1 were much appreciated and IWG-1 hopes that this level of cooperation will continue. In reviewing the early draft government comments, IWG-1 agreed with almost all government views. However, IWG-1 does differ from the government view that text moved by the VGE from the section on coordination to an appendix of the simplified Radio Regulations should be returned to the coordination section. Specifically in reviewing Article S9 of the simplified Radio Regulations, it is apparent that some simplification of the text was accomplished by moving portions of the text to an appendix. Upon review of the final text, this appears to be an effective technique in simplification even though it may not have resulted in a reduction in the volume of the text. It is useful because those not as familiar with the (simplified) Radio Regulations can read the basic text and gain from it a clear overview of the process for registration of frequency assignments. A great number of the detailed procedures and provisions, very necessary in the registration process, but often a source of confusion to the uninitiated, are found in the appendices. References to these important texts are appropriately found, for example, in S9. These details do not contribute to the broad understanding of the process and therefore can be placed in the appendices without consequence.

Perhaps the greatest consequence of adopting the simplified Radio Regulations suggested by the work of Task 2 is that by "demystifying" the process of advance publication, coordination and registration of the orbit and associated spectrum, more countries will find it easier to undertake this process. This may result in greater "paper filing" for systems likely never to be brought into use and greater costs associated with coordinating "real" systems. Likewise, the United States and other nations which have historically made use of these resources will need to be more vigilant in complying with the letter and spirit of the Radio Regulations than has been the case to date. This will undoubtedly result in higher costs associated with the process of notifying a particular satellite network, and may also result in more limited access to the orbit, particularly the geostationary orbit, than is presently available. The U.S. satellite industry and the Government users of the orbit resource must take these factors into account and these concerns should not be overlooked by policymakers as they define the U.S. position for WRC-95 on the issue of the VGE Report.

B. Summary of IWG-1 Analysis of VGE Report Regarding Procedures

Article S7 (Application of the Procedures; No. 1.1(b))

This Section states that the procedures of the Radio Regulations shall be applied by administrations, the Board and the Bureau to effect modifications to a world plan. At present, each world plan contains its own procedures for modification; such procedures were uniquely developed to suit each particular plan. No. 1.1(b) is related to Article S10 (Procedures for Modification of a Frequency Allotment or Assignment Plan). It is the view of IWG-1 that the present procedures for modification of plans should be retained, that No. 1.1(b) and Article S10 should not be adopted by WRC-95, and that the subject of plan modification procedures should be studied further.

Article S7; No. 1.4

The simplified procedures, beginning at No. 1.4, make reference to the new Rules of Procedure (ROPs). The ROPs are presently being drafted by the Radiocommunication Bureau, and have not yet been seen by administrations. IWG-1 is concerned that the ROPs may contain, in addition to procedural rules, provisions which affect the substantive rights of administrations. Because of the interrelationship between the ROPs and the Simplified Regulations, IWG-1 recommends that the U.S. government seek issuance of the draft ROPs by the Bureau as soon as possible, but not later than six months before the

commencement of WRC-95. If, upon review of the draft ROPs, there are substantive concerns about their content, than the U.S. government should request that the ROPs be added to the WRC-95 agenda in accordance with the provisions of Article 14, Section 2(a) of the Contribution (CS95). Because of the integral interrelationship between the Simplified Regulations and the new ROPs, the U.S. government should not recommend adoption of the VGE's Simplified Regulations unless and until the ROPs have been reviewed thoroughly.

Article S7; No. 1.5

This section states that, in the case of harmful interference involving the application of the provisions of Section VI of Article S15 (except when there is an obligation to eliminate harmful interference under the provisions of this chapter), administrations are urged to exercise the utmost goodwill and mutual cooperation, taking into account all irrelevant technical and operational factors of the case. IWG-1 is concerned about the definition of harmful interference as used here, in light of the use of that term in other sections of the Radio Regulations, the Constitution and the Convention.

It should be clearly understood that the definition of the term "Harmful interference" conforms to RR 163 of the current rules. In that definition an interfering signal is considered harmful if: a) it endangers the functioning of radionavigation or other safety services; or, b) it seriously degrades, obstructs

or repeatedly interrupts a radio communications service operating in accordance with the Regulations.

Accordingly, IWG-1 believes that the following concept should be introduced at some point in the simplified RRs. Namely, that an interfering signal should not be considered harmful if it: 1) is unwanted (per RR 160); 2) exceeds Permissible (per RR 161); or Accepted (per RR 162) Interference levels; or, 3) violates recommended Protection Ratios (RF) (per RR 164) unless it also is determined by the parties affected that it causes a) or b) above.

Article S8 (Status of Frequency Assignments Recorded in the Master International Frequency Register); No. 2.1 and 2.1.1

This section states that international rights and obligations regarding frequency assignments shall be derived from recordings in the master register or conformity with a plan. IWG-1 believes that the terminology in this section is confusing insofar as the term "frequency assignment" appears to be used in connection with the use of a frequency pursuant to a plan. Clarification of the terminology is required.

Article S8; No. 2.2

This section specifies the terms under which a frequency assignment shall have the right to international protection from harmful interference. The cross-reference indicates that the origin of this section is RR 1416. RR 1416 contains a specific reference to operation A assignments, but No.

2.2 omits such reference. IWG-1 recommends that the reference to operation A assignments be restored.

Article S8; No. 2.3 and VGE Note 2

This section contains a reference to "the associated provisions" of the Radio Regulations. The term "associated provisions," however, is not defined. In this regard, VGE Note 2 acknowledges that the term should be identified definitively, but that it will be for the Bureau to do so and that this definitive identification must be reflected in the Rules of Procedure currently being drafted. IWG-1 agrees with the proposal of the U.S. government Executive Branch (USG) that the term "associated provisions" should be deleted and replaced with suitable substitute language to reflect present usage in the Radio Regulations.

Article S8; No. 2.4

Same concern as with No. 2.3.

Article S9 (Procedure for Effecting Coordination with or Obtaining Agreement of Other Administrations)

Article S9; No. 3.1

This section sets forth the events which trigger both the effective date of a coordination request and the effective date of a notification. Under No. 3.1, coordination or notification information is considered to have been received by

the Bureau not earlier than six months after the date of receipt of the advance publication information. IWG-1 recommends that the date of publication of the advance publication information be the triggering event for notifications and the date of receipt of the advance publication information remain as the triggering event for a coordination request.

Article S9; No. 3.2

This section states that administrations, following exchange of information after advance publication, shall endeavor to cooperate in joint efforts to resolve difficulties "with if necessary the assistance the Bureau." The term "if necessary" is ambiguous in defining the circumstances under which the Bureau is to provide assistance. IWG-1 recommends a change to reflect that the Bureau shall assist the parties if either of the parties shall request the Bureau's assistance.

Article S9; No. 3.2bis

This section sets forth the procedures to be followed by administrations in exploring means to resolve difficulties with other administrations regarding the planned network. The VGE has omitted the procedure set forth in RR 1056, which requires an administration proposing a planned satellite network to inform the Bureau of the progress in resolving any difficulties. IWG-1 notes the recommendation of the USG that administrations continue to be required to provide a report to

the Bureau on the results of the advance publication phase, and concurs in that recommendation.

Article S9, Section II (Coordination Procedure); No. 3.4

This section, as proposed by the VGE, sets forth the cases in which coordination shall be effected. IWG-1 notes the proposal of the USG to clarify that coordination is only required with stations of the same or higher category of service, and concurs in that proposal.

Article S9, Section II, No. 3.4(1)

This item contains a reference to VGE Note 4, which states that WRC-95 may wish to review the limit of 1 Ghz which stems from RR 1107 and RR 1148. IWG-1 notes the proposal of the USG to delete Note 4 for the reason that the present Appendix 28 does not apply below 1 Ghz and, therefore, the frequency limits of RR 1107 and RR 1148 cannot be changed until a satisfactory procedure is agreed for determining the coordination area in such cases. IWG-1 has no objection to the proposed deletion of VGE Note 4.

Article S9, No. 3.5.

This item states that the word "coordination" as used throughout Article S9 "refers also to the process of obtaining agreement of other administrations when required by these regulations." According to the VGE explanation, this is an

editorial statement which is "essential for simplification." IWG-1 notes that the definition of "coordination" in No. 3.5 is inconsistent with the title of Article S9, which implies that "effecting coordination with" other administrations is something separate and distinct from "obtaining agreement of" other administrations. If the VGE intends for the two phrases to be synonymous, then IWG-1 recommends that No. 3.5 be made a footnote to the title of Section II (Coordination Procedure) of Article S9.

Article S9; No. 3.9.

This item specifies the information to be used for effecting coordination for a satellite network. IWG-1 notes the proposal of the USG to add the phrase "all or part of" to refer to the service area of the space station with regard to the location of one or more typical earth stations. IWG-1 has no objection to the proposed change.

Article S9; No. 3.10.

This section specifies, by means of a cross-reference to Appendix S5, the frequency assignments to be taken into account in effecting coordination. IWG-1 notes that the USG is proposing that the text describing the assignments with which coordination must be effected be set forth in the body of the Radio Regulations, rather than in an appendix. There was some